

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
16 June 2005 (16.06.2005)

PCT

(10) International Publication Number
WO 2005/054804 A1

(51) International Patent Classification⁷: G01L 9/12, 9/00

(74) Agent: ELLA CHEONG SPRUSON & FERGUSON
(SINGAPORE) PTE LTD; P.O. Box 1531, Robinson
Road Post Office, Singapore 903031 (SG).

(21) International Application Number:
PCT/SG2004/000395

(81) Designated States (*unless otherwise indicated, for every kind of national protection available*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(22) International Filing Date: 3 December 2004 (03.12.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/526,842 4 December 2003 (04.12.2003) US

(84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(71) Applicant (*for all designated States except US*): NATIONAL UNIVERSITY OF SINGAPORE [SG/SG];
10 Kent Ridge Crescent, Singapore 119260 (SG).

(72) Inventors; and

(75) Inventors/Applicants (*for US only*): TAN, Woei Wan [SG/SG]; 991 Bukit Timah Road, #03-20, Singapore 589630 (SG). GE, Pei [CN/SG]; 134B Hong Leong Garden Shopping Centre, West Coast Way, Singapore 127064 (SG). TAY, Eng Hock Francis [SG/SG]; 12 Kent Ridge Drive, E100 Temasek Hall NUS, Singapore 119243 (SG). PHANG, Jyh Siong [MY/SG]; Blk 825 Woodlands St 81, #10-42, Singapore 730825 (SG).

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: CAPACITIVE PRESSURE SENSOR WITH A CANTILEVER MEMBER

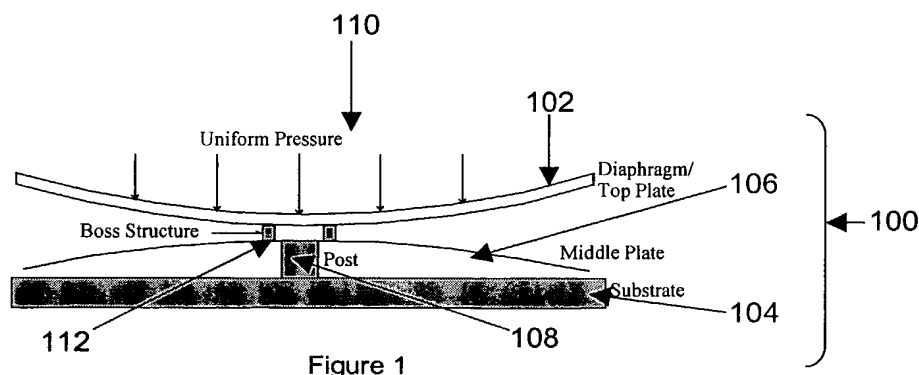


Figure 1

(57) Abstract: A capacitive pressure sensing device (100) comprising, a base member (104), a diaphragm member (102) deflectable under an external pressure (110), a cantilever member (106) disposed between the base member (104) and the diaphragm member (102) and supported on a support structure (108), wherein the base member (104) and the cantilever member (106) form a capacitor structure of the device (100) and wherein deflection of the diaphragm member (102) beyond a threshold value causes the cantilever member (106) to deflect to cause a capacitive change in the capacitor structure.

WO 2005/054804 A1